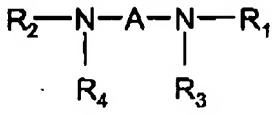
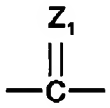
AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** A method for treating HIV which comprises administering to a patient in need thereof, an effective anti-HIV amount of a compound of the formula



IA

wherein A is



where Z_i is O,

R_1 is isothiazolyl, substituted isothiazolyl, thiazolyl, substituted thiazolyl, thiadiazolyl, substituted thiadiazolyl;

R_2 is a group of the formula

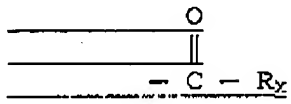
(cis); and

wherein R_5 is a stable, saturated or unsaturated, substituted or unsubstituted 3 to 8 member organic monocyclic ring having 0 to 4 heteroatoms selected from S, O and N; or R_5 is a stable, saturated or unsaturated, substituted or unsubstituted 7 to 10 membered organic bicyclic ring having 0 to 5 heteroatoms selected from S, O or N; and

R_3 and R_4 are hydrogen; or a pharmaceutically acceptable salt thereof and wherein the substituted ring may have 1-8 substituents independently selected from aryl, substituted aryl, halo, C_1-C_6 alkyl, C_1-C_5 alkoxy, C_2-C_6 alkenyl, C_2-C_8 alkynyl, C_2-C_8 alkenoxy, amino, nitro, cyano, carboxy, hydroxymethyl, aminomethyl, carboxymethyl, C_1-C_4 alkylthio, hydroxy, C_1-C_4 alkanoyloxy, carbamoyl, halo-substituted C_1-C_6 alkyl, C_1-C_6 alkoxy-substituted C_1-C_6 alkyl, a group of the formula

$-SO_2R_X$

wherein R_X is C_1-C_6 alkyl, aryl, substituted aryl, or amino; or a group of the formula

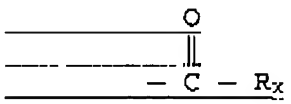


wherein R_X is as defined above and

wherein said substituted R_1 and/or R_5 groups have one or more substituents independently selected from aryl, halo, C_1-C_6 alkyl, C_1-C_5 alkoxy, C_2-C_6 alkenyl, C_2-C_8 alkynyl, C_2-C_8 alkenoxy, amino, nitro, cyano, carboxy, hydroxymethyl, aminomethyl, carboxymethyl, C_1-C_4 alkylthio, hydroxy, C_1-C_4 alkanoyloxy, carbamoyl, halo-substituted C_1-C_6 alkyl, C_1-C_6 alkoxy-substituted C_1-C_6 alkyl, a group of the formula

$-SO_2R_X$

wherein R_X is C_1-C_6 alkyl, aryl, or amino; or a group of the formula



wherein R_X is as defined above.

2. **(Original)** The method of claim 1 wherein R_5 is cyclo(C_3-C_8)alkyl, cyclo (C_3-C_8) alkenyl; isothiazolyl, substituted isothiazolyl, tetrazolyl, substituted tetrazolyl, triazolyl, substituted triazolyl, pyridyl, substituted pyridyl, imidazolyl, substituted imidazolyl, phenyl, substituted phenyl, naphthyl, substituted naphthyl, benzoxazolyl, substituted benzoxazolyl, benzimidazolyl, substituted benzimidazolyl, thiazolyl, substituted thiazolyl, oxazolyl, substituted oxazolyl, benzothiazolyl, substituted benzothiazolyl, pyrazinyl, substituted pyrazinyl, pyridazinyl, substituted pyridazinyl, thiadiazolyl, substituted thiadiazolyl, benzotriazolyl, substituted benzotriazolyl, pyrrolyl, substituted pyrrolyl, indolyl, substituted indolyl, benzothienyl, substituted benzothienyl, thienyl, substituted thienyl, benzofuryl, substituted benzofuryl, furyl, substituted furyl, quinolinyl, substituted quinolinyl, isoquinolinyl, substituted isoquinolinyl, pyrazolyl, and substituted pyrazolyl.

3. **(Original)** The method of claim 1, wherein R_1 is, thiazolyl or substituted thiazolyl

4. **(Currently Amended)** The method of claim 1 wherein;

R_1 is thiazolyl, (4-methyl)thiazolyl, (4,5-dimethyl)thiazolyl, (4-cyano)thiazolyl, (4-ethyl)thiazolyl, 4-(3-pyridyl)thiazolyl, 4-(3-nitrophenyl)thiazolyl, 1,3,4-thiadiazolyl,~~+~~

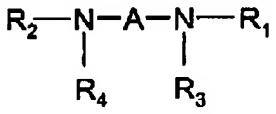
(cis); and

R_5 is phenyl, 2-methoxyphenyl, 3-methoxyphenyl, 4-methoxyphenyl, 2-ethoxyphenyl, 2-methylphenyl, 3-methylphenyl, 2-fluorophenyl, 2,6-difluorophenyl, 2-fluoro-6-methoxyphenyl, 2-fluoro-6-ethoxyphenyl, 2,3,5,6-tetrafluorophenyl, 2-chlorophenyl, 3-chlorophenyl, 1-cyclohexenyl, 2-naphthyl, 2,5-dimethoxyphenyl, 2-azidophenyl, 2,3,4-trifluorophenyl, 2-fluoro-6-chlorophenyl, 2,6-dimethoxyphenyl, 2,3,6-trichlorophenyl, 2,6-dichlorophenyl, 2,3,5-trichlorophenyl, 3,5-dichlorophenyl, 3-fluorophenyl, 2,4-dimethoxyphenyl, 2-pyridyl, 2-(6-methoxy)pyridyl, 2-(6-ethoxy)pyridyl, 2-(6-fluoro)pyridyl, 2-(5-fluoro)pyridyl, 2-(4-fluoro)pyridyl, 2-(3-fluoro)pyridyl, 2-(6-chloro)pyridyl, 2-(5-chloro)pyridyl, 2-(4-chloro)pyridyl, 2-(3-chloro)pyridyl, 2-(5-methoxy-6-fluoro)pyridyl, 2-(3-methoxy-6- fluoro)pyridyl, 2-(6-methoxy-3-fluoro)pyridyl, 2-(5-ethoxy-6-fluoro)pyridyl, 2-(3-ethoxy-6- fluoro)pyridyl, 2-(6-ethoxy-3-fluoro)pyridyl, 2-(5,6-difluoro)pyridyl, 2-(3,6-difluoro)pyridyl, 2-(5,6-dichloro)pyridyl, 2-(3,6-dichloro)pyridyl, 2-(6-methoxy)pyridyl, 2-(6-ethoxy)pyridyl, 2-(1,3-pyrimidyl), 2-pyrazinyl, 3-pyridazinyl, 2,6-difluoro-3-methoxyphenyl, 2,6-difluoro- 3-ethoxyphenyl, 2,6-difluoro-4-methoxyphenyl, 2,6-difluoro-4-ethoxyphenyl, 2-(3-ethoxy)pyridyl, 2-(3-methoxy)pyridyl, 2,6-difluorophenyl, 2,6-difluoro-3-N-methylcarboxamidephenyl, 2-fluoro-6-chlorophenyl, 3-bromo-6-methoxyphenyl, 3-ethoxyphenyl, 3-bromo-6-ethoxyphenyl, 3-(2-fluoro)pyridyl, (2-vinyl)phenyl, (3-vinyl)phenyl, (3-methoxycarbonyl)phenyl, 5,6-dimethylbenzotriazolyl, 2,3-difluoro-6-methoxyphenyl, 2,6-difluoro-3-cyanophenyl, 3-ethynylphenyl, and 2,5-diethoxyphenyl.

5. **(Original)** The method as recited in claim 1 further comprising administering at least one other anti-HIV agent to said patient.

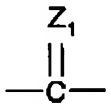
6. **(Original)** The method as recited in claim 5 wherein said agent is selected from ddI, ddC, or AZT.

7. **(Currently Amended)** A compound having the formula



IA

wherein A is



Z_i is O;

R_1 is isothiazolyl, substituted isothiazolyl, thiazolyl, substituted thiazolyl, thiadiazolyl, substituted thiadiazolyl,

R_2 is a group of the formula

(cis); and

wherein R_5 is a stable, unsaturated, substituted or unsubstituted i) 3 to 8 membered monocyclic ring having 0 to 4 hetero atoms or ii) a 7 to 10 membered bicyclic ring having 0 to 5 hetero atoms, said hetero atoms being selected from S, O and N; and

R_3 and R_4 are hydrogen; or a pharmaceutically acceptable salt thereof and

wherein the substituted R_1 and or R_5 groups have single or multiple substituents independently selected from halo, C_1-C_6 alkyl, C_1-C_5 alkoxy, C_2-C_6 alkenyl, C_2-C_8 alkynyl, C_2-C_8 alkenoxy, amino, nitro, cyano, carboxy, hydroxymethyl, aminomethyl, carboxymethyl, C_1-C_4 alkylthio, hydroxy, C_1-C_4 alkanoyloxy, carbamoyl, halo-substituted C_1-C_6 alkyl, C_1-C_6 alkoxy-substituted C_1-C_6 alkyl, a group of the formula

$$-SO_2R_x$$

wherein R_x is C_1-C_6 alkyl or amino; or a group of the formula

$$-C-R_x$$

wherein R_x is C_1-C_6 alkyl.

8. **Canceled**

9. **(Original)** The compound of claim 7 wherein R_1 is thiazolyl, (4-methyl)thiazolyl, (4,5-dimethyl)thiazolyl, (4-cyano)thiazolyl, (4-ethyl)thiazolyl, 4-(3-pyridyl)thiazolyl, 4-(3-nitrophenyl)thiazolyl, or 1,3,4-thiadiazolyl.

10. **(Original)** The compound of claim 7, wherein R_5 is cyclo(C3-C-8)alkenyl, thiazolyl, substituted thiazolyl, tetrazolyl, substituted tetrazolyl, triazolyl, substituted triazolyl, pyridyl, substituted pyridyl, imidazolyl, substituted imidazolyl, phenyl, substituted phenyl, naphthyl, sustituted naphthyl, benzoxazolyl, substituted benzoxazolyl, benzimidazolyl, substituted benzimidazolyl, thiazolyl, substituted thiazolyl, oxazolyl, substituted oxazolyl, benzothiazolyl, substituted benzothiazolyl, pyrazinyl,

substituted pyrazinyl, pyridazinyl, substituted pyridazinyl, thiadaizolyl, substituted thadiazolyl, benzotriazolyl, substituted benzotriazolyl, pyrrolyl, substituted pyrrolyl, indolyl, substituted indolyl, benzothienyl, substituted benzothienyl, thienyl, substituted theinyl, benzofuryl, substituted benzofuryl, furyl, substituted furyl, quinolinyl, substituted quinolinyl, isoquinolinyl, subsituted isoquinolinyl, pyrazolyl, and substituted pyrazolyl.

11. **(Original)** The compound of claim 10, wherein R_5 is phenyl, 2-methoxyphenyl, 3-methoxyphenyl, 4-methoxyphenyl, 2-ethoxyphenyl, 2-methylphenyl, 3-methylphenyl, 2-fluorophenyl, 2,6-difluorophenyl, 2-fluoro-6-methoxyphenyl, 2-fluoro-6-ethoxyphenyl, 2,3,5,6-tetrafluorophenyl, 2-chlorophenyl, 3-chlorophenyl, 1-cyclohexenyl, 2-naphthyl, 2,5-dimethoxyphenyl, 2-azidophenyl, 2,3,4-trifluorophenyl, 2-fluoro-67-chlorophenyl, 2,6-dimethoxyphenyl, 2,3,6-trichlorophenyl, 2,6-dichlorophenyl, 2,3,5-trichlorophenyl, 3,5-dichlorophenyl, 3-fluorophenyl, 2,4-dimethoxyphenyl, 2-pyridyl, 2-(6-methoxy)pyridyl, 2-(6-ethoxy)pyridyl, 2-(6-fluoro)pyridyl, 2-(5-fluoro)pyridyl, 2-(4-fluoro)pyridyl, 2-(3-fluoro)pyridyl, 2-(6-chloro)pyridyl, 2-(5-chloro)pyridyl, 2-(4-chloro)pyridyl, 2-(3-chloro)pyridyl, 2-(5-methoxy-6-fluoro)pyridyl, 2-(3-methoxy-6-fluoro)pyridyl, 2-(6-methoxy-3-fluoro)pyridyl, 2-(5-ethoxy-6-fluoro)pyridyl, 2-(3-ethoxyl-6-fluoro)pyridyl, 2-(6-ethoxy-3-fluoro)pyridyl, 2-(5, 6-difluoro)pyridyl, 2-(3,6-difluoro)pyridyl, 2-(5,6-dichloro)pyridyl, 2-(3,6-dichloro)pyridyl, 2-(6-methoxy)pyridyl, 2-(6-ethoxy)pyridyl, 2-(1,3-pyrimidyl), 2-pyrizinyl, 3-pyridazinyl, 2,6-difluoro-3-methoxyphenyl, 2,6-difluoro-3-ethoxylphenyl, 2,6-difluoro-4-methoxyphenyl, 2,6-difluoro-4-ethoxyphenyl, 2-(3-ethoxy)pyridyl, 2-(3-methoxy)pyridyl, 2,6-difluorophenyl, 2,6-difluoro-4-ethoxyphenyl, 2-(3-

ethoxy)pyridyl, 2-(3-methoxy)pyridyl, 2,6-difluorophenyl, 2,6-difluoro-3-N-methylcarboxamidephenyl. 2-fluoro-6-chlorphenyl, 3-bromo-6-methoxyphenyl, 3-ethoxyphenyl, 3-bromo-6-ethoxyphenyl, 3-(2-fluoro)pyridyl, (2-vinyl)phenyl, (3-vinyl)phenyl, (3-methoxycarbonyl)phenyl, 5,6-dimethylbenzotriazolyl, 2,3-difluoro-6-methoxyphenyl, 2,6-difluoro-3-cyanophenyl, 3-ethynylphenyl or 2,5-diethoxyphenyl.

12. **(Original)** The compound of claim 7, wherein the N' linkage to R_1 is at the 2 position relative to a heteroatom in said isothiazolyl, substituted isothiazolyl, thiazolyl, substituted thiazolyl, thiadiazolyl, substituted thiadiazolyl.

13. **(Original)** A pharmaceutical formulation comprising an effective amount of a compound as defined in claim 7; and a pharmaceutically acceptable carrier or diluent therefor.

14. **(Original)** A pharmaceutical formulation according to claim 13, wherein said agent is selected from ddI, ddC or AZT.

15. **(Currently Amended)** A method for treating ~~or inhibiting~~ HIV infection, comprising administering to a patient suffering from HIV infection an amount of a compound of claim 7 effective for treating ~~or inhibiting~~ HIV infection.